

What Is Claimed Is:

1. A functional cDNA chip for meat quality evaluation and screening of specific genes comprising a probe comprising muscle
5 specific genes specifically expressed in the muscle and fat tissues of swine and a substrate on which the probe is immobilized.

2. The functional cDNA chip according to claim 1, wherein the probe DNA includes ESM-specific genes and ASM-specific genes.

10

3. The functional cDNA chip according to claim 2, wherein the ESM-specific genes include actin, beta-myosin, glycogen phosphorylase, myosin heavy chain, pyruvate kinase and troponin C coding genes.

15

4. The functional cDNA chip according to claim 2, wherein the ASM-specific genes include 1-alpha dynein heavy chain, 601446467F1, fibronectin precursor and MHC class I coding genes.

20

5. A kit for meat quality evaluation and screening of specific genes in swine comprising the functional cDNA chip having muscle specific genes according to the growing stages in swine, as defined in claim 1, integrated thereon, Cy5-dCTP or Cy3-dCTP bound cDNA from RNA of the tissue to be screened, a fluorescence scanning
25 system and a computer analysis system